

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): Mobile communication terminal equipment for a CDMA cellular phone system, comprising:

 detection means for performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

 memory means for storing a scramble code;

 control means for controlling to write the scramble codes of the visiting cell and neighboring cell, detected by said detection means, into said memory means; and

 measurement means for measuring detection frequencies of the scramble codes and intra-cell stay times.

2. (original): Equipment according to claim 1, wherein said control means performs control so as to store the scramble codes in said memory means in response to user operation.

3. (original): Equipment according to claim 1, wherein said control means performs control so as to automatically store the scramble codes in said memory means in accordance with the detection frequencies of the scramble codes.

4. (original): Equipment according to claim 1 or 2, wherein said control means performs control so as to automatically store the scramble codes in said memory means in accordance with the intra-cell stay times.

5. (previously presented): Equipment according to any one of claims 1 to 3, wherein said control means performs control so as to store the scramble codes in said memory means upon assigning priorities thereto in detecting operation.

6. (original): Equipment according to claim 5, wherein said control means controls said detection means so as to perform cell detection by preferentially using the scramble codes stored in said memory means.

7. (original): Equipment according to claim 6, wherein said control means controls said detection means so as to perform cell detection by using a plurality of scramble codes, stored in said memory means, in the descending order of priorities.

8. (currently amended): Equipment according to claim 7, Mobile communication terminal equipment for a CDMA cellular phone system, comprising:
detection means for performing cell detection by detecting scramble codes of a visiting cell and a neighboring cell;

memory means for storing a scramble code;
control means for controlling to write the scramble codes of the visiting cell and
neighboring cell, detected by said detection means, into said memory means, upon assigning
priorities thereto in detecting operation, in response to user operation; and
measurement means for measuring detection frequencies of the scramble codes and intra-
cell stay times;

wherein:

said control means controls said detection means so as to perform cell detection
by preferentially using the scramble codes stored in said memory means,
said control means controls said detection means so as to perform cell detection
by using a plurality of scramble codes, stored in said memory means, in the descending
order of priorities, and

 said control means controls the detection means so as to perform cell detection by
 using a scramble code other than the scramble codes stored in said memory means when
 cell detection cannot be performed by using the scramble codes stored in said memory
 means.

9. (currently amended): Equipment according to ~~claim 8~~any one of claims 8, 58, and 59,
wherein said control means controls said detection means so as to perform cell detection by
preferentially using a scramble code exhibiting a high detection frequency in the past.

10. (original): Equipment according to claim 8, wherein said control means controls said detection means so as to perform cell detection by preferentially using a scramble code exhibiting a long stay time in the past.

11. (original): Equipment according to claim 6, wherein said detection means is configured to specify a scramble code group at the time of detection of a cell, and said control means controls said detection means so as to perform cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored in said memory means.

12. (original): Equipment according to claim 6, wherein said detection means is configured to specify a scramble code group at the time of detection of a cell, and said control means controls said detection means so as to perform cell detection in accordance with a priority of a scramble code which belongs to the specified scramble code group and is stored in said memory means.

13. (previously presented): Equipment according to any one of claims 1 to 3, wherein said detection means is configured to specify a scramble code group at the time of detection of a neighboring cell in a handover state, and said control means controls said detection means so as to perform neighboring cell detection by preferentially using a scramble code which belongs to

the specified scramble code group and is stored as a scramble code of the neighboring cell in said memory means.

14. (previously presented): Equipment according to claim 13, wherein said control means performs control so as to specify a scramble code group by preferentially using a scramble code group to which a scramble code stored in said memory means belongs, when said detection means specifies the scramble code group.

15. (currently amended): A control method for cell detection in mobile communication terminal equipment for a CDMA cellular phone system, comprising:

the detection step of performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

the storage step of storing the detected scramble codes of the visiting cell and neighboring cell in a memory means; and

the measurement step of measuring detection frequencies of the scramble codes and intra-cell stay times.

16. (original): A method according to claim 15, wherein the storage step comprises storing the scramble codes in memory means in response to user operation.

17. (original): A method according to claim 15, wherein the storage step comprises automatically storing the scramble codes in the memory means in accordance with the detection frequencies of the scramble codes.

18. (original): A method according to claim 15 or 16, wherein the storage step comprises automatically storing the scramble codes in the memory means in accordance with the intra-cell stay times.

19. (original): A method according to any one of claims 15 to 17, wherein the storage step comprises storing the scramble codes in the memory means upon assigning priorities thereto in detecting operation.

20. (original): A method according to claim 19, wherein the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means.

21. (original): A method according to claim 20, wherein the detection step comprises performing cell detection by using a plurality of scramble codes, stored in the memory means, in the descending order of priorities.

22. (currently amended): ~~A method according to claim 21, A control method for cell detection in mobile communication terminal equipment for a CDMA cellular phone system, comprising:~~

a detection step of performing cell detection by detecting scramble codes of a visiting cell and a neighboring cell;

a storage step of storing the detected scramble codes of the visiting cell and the neighboring cell in a memory means, upon assigning priorities thereto in detecting operation, in response to user operation; and

a measurement step of measuring detection frequencies of the scramble codes and intra-cell stay times;

wherein:

the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means upon assigning priorities thereto in detecting operation,

the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means,

the detection step comprises performing cell detection by using a plurality of scramble codes, stored in the memory means, in descending order of priorities, and

the detection step comprises performing cell detection by using a scramble code other than the scramble codes stored in the memory means when cell detection cannot be performed by using the scramble codes stored in the memory means.

23. (currently amended): A method according to any one of claims 22, 60, and 61, wherein the detection step comprises performing cell detection by preferentially using a scramble code exhibiting a high detection frequency in the past.

24. (currently amended): A method according to any one of claims 22, 60, and 61, wherein the detection step comprises performing cell detection by preferentially using a scramble code exhibiting a long stay time in the past.

25. (original): A method according to claim 20, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored in the memory means.

26. (previously presented): A method according to claim 21, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection in accordance with a priority of a scramble code which belongs to the specified scramble code group and is stored in the memory means.

27. (previously presented): A method according to any one of claims 15 to 18, wherein the detection step comprises the step of specifying a scramble code group at the time of detection

of a neighboring cell in a handover state, and the step of performing neighboring cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored as a scramble code of the neighboring cell in the memory means.

28. (previously presented): A method according to claim 27, wherein the detection step comprises the step of specifying a scramble code group by preferentially using a scramble code group to which a scramble code stored in the memory means belongs, when specifying the scramble code group.

29. (currently amended): A recording medium recording a program for a control method for cell detection in mobile communication terminal equipment for a CDMA cellular phone system, the program comprising:

the detection step of performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

the storage step of storing the detected scramble codes of the visiting cell and neighboring cell in a memory means; and

the measurement step of measuring detection frequencies of the scramble codes and intra-cell stay times.

30. (original): A medium according to claim 29, wherein the storage step comprises storing the scramble codes in the memory means in response to user operation.

31. (original): A medium according to claim 29, wherein the storage step comprises automatically storing the scramble codes in the memory means in accordance with the detection frequencies of the scramble codes.

32. (previously presented): A medium according to claim 29, wherein the storage step comprises automatically storing the scramble codes in the memory means in accordance with the intra-cell stay times.

33. (original): A medium according to any one of claims 29 to 31, wherein the storage step comprises storing the scramble codes in the memory means upon assigning priorities thereto in detecting operation.

34. (original): A medium according to claim 33, wherein the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means.

35. (original): A medium according to claim 34, wherein the detection step comprises performing cell detection by using a plurality of scramble codes, stored in the memory means, in the descending order of priorities.

36. (currently amended): ~~A medium according to claim 35,~~ A recording medium recording a program for a control method for cell detection in mobile communication terminal equipment for a CDMA cellular phone system, the program comprising:

a detection step of performing cell detection by detecting scramble codes of a visiting cell and a neighboring cell;

a storage step of storing the detected scramble codes of the visiting cell and neighboring cell in a memory means, upon assigning priorities to the detected scramble codes in the detection step, in response to user operation; and

the measurement step of measuring detection frequencies of the scramble codes and intra-cell stay times;

wherein

the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means in descending order of priority, and

the detection step comprises performing cell detection by using a scramble code other than the scramble codes stored in the memory means when cell detection cannot be performed by using the scramble codes stored in the memory means.

37. (currently amended): A medium according to any one of claims 36, 62, and 63, wherein the detection step comprises performing cell detection by preferentially using a scramble code exhibiting a high detection frequency in the past.

38. (currently amended): A medium according to any one of claims 36, 62, and 63, wherein the detection step comprises performing cell detection by preferentially using a scramble code exhibiting a long stay time in the past.

39. (original): A medium according to claim 34, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored in the memory means.

40. (previously presented): A medium according to claim 35, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection in accordance with a priority of a scramble code which belongs to the specified scramble code group and is stored in the memory means.

41. (previously presented): A medium according to any one of claims 29 to 32, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of a neighboring cell in a handover state, and the step of performing neighboring cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored as a scramble code of the neighboring cell in the memory means.

42. (previously presented): A medium according to claim 41, wherein the detection step comprises the step of specifying a scramble code group by preferentially using a scramble code group to which a scramble code stored in the memory means belongs, when specifying the scramble code group.

43. (previously presented): Equipment according to claim 4, wherein said control means performs control so as to store the scramble codes in said memory means upon assigning priorities thereto in detecting operation.

44. (previously presented): Equipment according to claim 4, wherein said detection means is configured to specify a scramble code group at the time of detection of a neighboring cell in a handover state, and said control means controls said detection means so as to perform neighboring cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored as a scramble code of the neighboring cell in said memory means.

45. (previously presented): Equipment according to claim 5, wherein said detection means is configured to specify a scramble code group at the time of detection of a neighboring cell in a handover state, and said control means controls said detection means so as to perform neighboring cell detection by preferentially using a scramble code which belongs to the specified

scramble code group and is stored as a scramble code of the neighboring cell in said memory means.

46. (previously presented): Equipment according to claim 11, wherein said control means performs control so as to specify a scramble code group by preferentially using a scramble code group to which a scramble code stored in said memory means belongs, when said detection means specifies the scramble code group.

47. (previously presented): Equipment according to claim 12, wherein said control means performs control so as to specify a scramble code group by preferentially using a scramble code group to which a scramble code stored in said memory means belongs, when said detection means specifies the scramble code group.

48. (currently amended): A method according to any one of claims 22, 60, and 61, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection in accordance with a priority of a scramble code which belongs to the specified scramble code group and is stored in the memory means.

49. (previously presented): A method according to claim 19, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of a neighboring

cell in a handover state, and the step of performing neighboring cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored as a scramble code of the neighboring cell in the memory means.

50. (previously presented): A method according to claim 20, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of a neighboring cell in a handover state, and the step of performing neighboring cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored as a scramble code of the neighboring cell in the memory means.

51. (previously presented): A method according to claim 25, wherein the detection step comprises the step of specifying a scramble code group by preferentially using a scramble code group to which a scramble code stored in the memory means belongs, when specifying the scramble code group.

52. (previously presented): A method according to claim 26, wherein the detection step comprises the step of specifying a scramble code group by preferentially using a scramble code group to which a scramble code stored in the memory means belongs, when specifying the scramble code group.

53. (currently amended): A medium according to any one of claims 36, 62, and 63, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection in accordance with a priority of a scramble code which belongs to the specified scramble code group and is stored in the memory means.

54. (previously presented): A medium according to claim 33, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of a neighboring cell in a handover state, and the step of performing neighboring cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored as a scramble code of the neighboring cell in the memory means.

55. (previously presented): A medium according to claim 34, wherein the detection step comprises the step of specifying a scramble code group at the time of detection of a neighboring cell in a handover state, and the step of performing neighboring cell detection by preferentially using a scramble code which belongs to the specified scramble code group and is stored as a scramble code of the neighboring cell in the memory means.

56. (previously presented): A medium according to claim 39, wherein the detection step comprises the step of specifying a scramble code group by preferentially using a scramble code

group to which a scramble code stored in the memory means belongs, when specifying the scramble code group.

57. (previously presented): A medium according to claim 40, wherein the detection step comprises the step of specifying a scramble code group by preferentially using a scramble code group to which a scramble code stored in the memory means belongs, when specifying the scramble code group.

58. (new): Mobile communication terminal equipment for a CDMA cellular phone system, comprising:

 detection means for performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

 memory means for storing a scramble code;

 control means for automatically storing the scramble codes of the visiting cell and neighboring cell, detected by said detection means, into said memory means, upon assigning priorities thereto in the detection means, in accordance with the detection frequencies of the scramble codes; and

 measurement means for measuring detection frequencies of the scramble codes and intra-cell stay times;

 wherein

said control means controls said detection means so as to perform cell detection by preferentially using the scramble codes stored in said memory means in the descending order of priority, and

 said control means controls the detection means so as to perform cell detection by using a scramble code other than the scramble codes stored in said memory means when cell detection cannot be performed by using the scramble codes stored in said memory means.

59. (new): Mobile communication terminal equipment for a CDMA cellular phone system, comprising:

 detection means for performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

 memory means for storing a scramble code;

 control means for automatically storing the scramble codes of the visiting cell and neighboring cell, detected by said detection means, into said memory means, upon assigning priorities thereto in the detection means; and

 measurement means for measuring detection frequencies of the scramble codes and intra-cell stay times;

 wherein

said control means controls said detection means so as to perform cell detection by preferentially using the scramble codes stored in said memory means in the descending order of priority, and

 said control means controls the detection means so as to perform cell detection by using a scramble code other than the scramble codes stored in said memory means when cell detection cannot be performed by using the scramble codes stored in said memory means.

60. (new): A control method for cell detection in mobile communication terminal equipment for a CDMA cellular phone system, comprising:

 the detection step of performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

 the storage step of storing the detected scramble codes of the visiting cell and neighboring cell in a memory means in accordance with the detection frequencies of the scramble codes, upon assigning priorities thereto in the detection step; and

 the measurement step of measuring detection frequencies of the scramble codes and intra-cell stay times;

 wherein

 the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means, in the descending order of priorities, and

the detection step comprises performing cell detection by using a scramble code other than the scramble codes stored in the memory means when cell detection cannot be performed by using the scramble codes stored in the memory means.

61. (new): A control method for cell detection in mobile communication terminal equipment for a CDMA cellular phone system, comprising:

the detection step of performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

the storage step of storing the detected scramble codes of the visiting cell and neighboring cell in a memory means, upon assigning priorities thereto in the detection step; and

the measurement step of measuring detection frequencies of the scramble codes and intra-cell stay times;

wherein

the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means, in the descending order of priorities, and

the detection step comprises performing cell detection by using a scramble code other than the scramble codes stored in the memory means when cell detection cannot be performed by using the scramble codes stored in the memory means.

62. (new): A recording medium recording a program for a control method for cell detection in mobile communication terminal equipment for a CDMA cellular phone system, the program comprising:

the detection step of performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

the storage step of automatically storing the detected scramble codes of the visiting cell and neighboring cell in a memory means in accordance with the detection frequencies of the scramble codes, upon assigning priorities thereto in the detection step; and

the measurement step of measuring detection frequencies of the scramble codes and intra-cell stay times;

wherein

the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means in the descending order of priority, and

the detection step comprises performing cell detection by using a scramble code other than the scramble codes stored in the memory means when cell detection cannot be performed using the scramble codes stored in the memory means.

63. (new): A recording medium recording a program for a control method for cell detection in mobile communication terminal equipment for a CDMA cellular phone system, the program comprising:

the detection step of performing cell detection by detecting scramble codes of a visiting cell and neighboring cell;

the storage step of automatically storing the detected scramble codes of the visiting cell and neighboring cell in a memory means, upon assigning priorities thereto in the detection step; and

the measurement step of measuring detection frequencies of the scramble codes and intra-cell stay times;

wherein

the detection step comprises performing cell detection by preferentially using the scramble codes stored in the memory means in the descending order of priority, and the detection step comprises performing cell detection by using a scramble code other than the scramble codes stored in the memory means when cell detection cannot be performed using the scramble codes stored in the memory means.